

REMARKS

Favorable reconsideration is respectfully requested in view of the previous amendments and following remarks.

Before turning to the claims, a discussion of an embodiment disclosed in this application's specification is provided. As illustrated in Fig. 4, a bimetal 2 of a trip mechanism includes a temperature measurement part 8 including a bending part 11 bent substantially perpendicular to a longitudinal direction of the bimetal 2. As illustrated in Fig. 8, this arrangement allows for temperature to be measured from an upper side of the bimetal 2 by a no-contact thermometer 10 in a direction substantially parallel to the longitudinal direction of the bimetal 2.

Turning now to the claims, independent Claim 1 is rejected as being unpatentable over Leiti in view of Larranaga.

As amended, Claim 1 recites a thermal trip device in which, *inter alia*, a bimetal is heated by overcurrent and performs trip operation of a circuit by curvature of the heated bimetal, wherein a temperature measurement part of the bimetal is provided with a bending part bent substantially perpendicular to a longitudinal direction of the bimetal.

Leiti discloses a thermal trip including a bimetallic strip 3. The bimetallic strip 3 thermally deforms when an overcurrent passes through it so as to actuate a tripping lever 6, which breaks the circuit.

Larranaga discloses a circuit breaker including a temperature sensor 40 which provides a signal indicative of a temperature of a target region 42 of a bridge 41, which conducts current between a flexible braid 49 and a lug 50. When the temperature sensor signal exceeds a predetermined threshold, a trip signal is

provided to a solenoid 46. In response to the trip signal, a plunger 54 extends from the solenoid 46 and activated a trip mechanism 15 to separate the contacts 18 and 20.

The Official Action correctly notes that Leiti does not disclose a bending part. The Official Action goes on to assert, without further explanation, that Larranaga "teaches that it is known to have a bend target... to be monitored for temperature".

Applicants assume for the sake of discussion that the Examiner intends to modify Leiti's bimetallic strip 3 to be bent at a sharp angle between its two longitudinal ends in the same manner as Larranaga's bridge 41. If Applicants misunderstand the Examiner's position, it is respectfully requested that the Examiner provide clarification. In any event, Larranaga's bridge 41 is bent at a sharp angle between its two longitudinal ends so that it can be connected at one end to the braid 49 and at the other end to the lug 50. This arrangement provides an electrical connection between the braid 49 and the lug 50. Moreover, Larranaga's bridge 41 is not designed to thermally deform.

Leiti's bimetallic strip 3 does not to provide an electrical connection between elements attached to its two ends. Thus, an ordinarily skilled artisan would have seen no reason in Larranaga to provide a sharply angled bend between the free end 3b and the contact end 3a of Leiti's bimetallic strip 3. Moreover, an ordinarily skilled artisan would have recognized that Leiti's bimetallic strip 3 is shaped as a cantilever beam so as to thermally deform in a simple, predictable manner. Applicants respectfully submit that an ordinarily skilled artisan would not have wanted to needlessly complicate the shape of Leiti's bimetallic strip 3 so as to potentially complicate or make less predictable its thermal deformation properties.

Accordingly, Claim 1 is allowable over Leidl in view of Larranaga, and withdrawal of the rejection of Claim 1 is respectfully requested.

Claim 4 is allowable at least by virtue of its dependence from allowable Claim 1. Thus, a detailed discussion of the additional distinguishing features recited in Claim 4 is not set forth at this time

Claims 7 and 8, the only other pending independent claims, are also rejected as being unpatentable over Leidl in view of Larranaga.

As amended, Claim 7 recites a thermal trip device in which a bimetal is heated by overcurrent and performs trip operation of a circuit by curvature of the heated bimetal, wherein a temperature measurement part of the bimetal is provided with a bending part bent substantially perpendicular to a longitudinal direction of the bimetal.

Also, amended Claim 8 recites a circuit breaker having, *inter alia*, a thermal trip device in which a bimetal is heated by overcurrent and performs trip operation of a circuit by curvature of the heated bimetal, wherein a temperature measurement part of the bimetal is provided with a bending part bent substantially perpendicular to a longitudinal direction of the bimetal.

Consistent with the above discussion, Claims 7 and 8 are allowable over Leidl in view of Larranaga, and withdrawal of the rejection of Claims 7 and 8 is respectfully requested.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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